

REDUCED SNR HANDSHAKE SIGNALING IN ADSL SYSTEMS

ABSTRACT:

In an asynchronous digital subscriber line (ADSL) system comprising a central office
5 ADSL Terminating Unit (ATU-C) in bi-directional overlap spectrum discrete multitone (DMT)
communication with a remote ADSL Terminating Unit (ATU-R), a method is provided in
accordance with the present invention. The method comprises the step of transmitting a first
handshake tone at either a first DMT tone or a second DMT tone based at least in part on a
distance between the ATU-C and ATU-R. In one embodiment, the first handshake tone is
10 transmitted at the first DMT tone when the distance between the ATU-C and ATU-R is less than
6.2 kilometers and the first handshake tone is transmitted at the second DMT tone when the
distance between the ATU-C and ATU-R is greater than or equal to 6.2 kilometers.